REMARKS/ARGUMENTS

Claims 9-10 are pending in the application and rejected under 35 U.S.C. 103 as being unpatentable over United States Patent 5,659,328 to Tokodoro et al. (hereinafter "Tokodoro") in view of the United States Patent 5,841,411 to Francis.

By this paper, Applicants hereby amend claims 9-10. New claims 11-14 are added. Support for the new and amended claims can be found throughout the application. For example, support can be found at pages 11-14 and with reference to Figs. 3-4. No new matter has been added.

As discussed below, Applicants respectfully submit that the cited references fail to disclose each and every element as claimed and that their combination does not disclose or fairly suggest the claimed features and limitations. Accordingly, reconsideration and allowance of all pending claims is respectfully requested.

Claim 9

Claim 9 recites a display device. As claimed, the display device comprises "a current measuring circuit for detecting a high-voltage current flowing from the high-voltage power supply circuit...wherein an output supplied from the data driver to the display panel is controlled so as to be reduced when an amount of the high-voltage current detected by the current measuring circuit exceeds a first threshold current value, and the video signal processing circuit controls an amplitude of the video signal so as to be reduced when an amount of the high-voltage current detected by the current measuring circuit exceeds a second threshold current value." Applicants respectfully submit that Tokodoro in view of Francis does not teach or suggest reducing the output of a display driver or the amplitude of a video signal based on respective first and second threshold values of a current flowing from a high-voltage power supply circuit.

Tokodoro discusses correcting for variations in the characteristics of surface conduction electron emitting devices. In the relevant passages, Tokodoro describes that correction values for each electron emitting device are determined using a test pattern generator and then stored in a memory. See, Tokodoro at col. 14, ll. 32-44. During operation, image data is adjusted using the correction values to compensate for distortion caused by differences in the individual electron emitting devices. See e.g., Tokodoro at col. 16, ll. 32-39 ("Since the driving signals applied to the surface conduction electron emitting devices are already corrected on the basis of the respective characteristics of the devices, electron beams can be output faithfully with respect to the image data supplied from the external signal source" (emphasis added)).

Tokodoro does not disclose adjusting the output of a data driver when an amount of high-voltage current exceeds a first threshold current value. Instead, Tokodoro discloses that image data is adjusted based on properties of the display elements. In other words, as understood by Applicants, an initial calibration is performed and thereafter all image data is corrected based on properties of the display regardless of current flowing from high-voltage source 56. See, Tokodoro at col. 16, ll. 15-29. Thus, unlike the claimed invention, Tokodoro does not disclose that "an output supplied from the data driver to the display panel is controlled so as to be reduced when an amount of the high-voltage current detected by the current measuring circuit exceeds a first threshold current value" (emphasis added).

In addition, Tokodoro does not disclose or suggest reducing the amplitude of a video signal when current from a high-voltage power supply circuit exceeds a second threshold value. The Examiner concedes that Tokodoro does not disclose a video signal processing circuit for supplying a video signal to the display panel as claimed. See, Office Action at page 3. It therefore follows that Tokodoro also fails to disclose controlling an amplitude of the video signal based on a level of current from a high-voltage power supply circuit.

In summary, Applicants respectfully submit that Tokodoro does not disclose or suggest detecting a current flowing from a high-voltage power supply to a display panel and adjusting either the output of a data driver or a video signal processing circuit based on the amount of current flow. In particular, Tokodoro does not disclose adjusting an output from the data driver based upon a first threshold current value, and adjusting the output of the video signal processing circuit based on a second threshold current value as claimed.

Francis does not cure Tokodoro's deficiencies. Although Francis does discuss a video signal processor, it does not teach or suggest video signal processing based on an amount of current flowing from a high-voltage power supply circuit to a display panel. Francis does not teach or suggest reducing an output of a data driver "when an amount of high-voltage current detected by a current measuring circuit exceeds a first current threshold value." Similarly, Francis does not disclose or suggest that "the video signal processing circuit controls an amplitude of the video signal so as to be reduced when an amount of the high-voltage current detected by the current measuring circuit exceeds a second threshold current value."

Accordingly, Applicants respectfully submit that Tokodoro in view of Francis fails to disclose each and every element of the claimed invention. Moreover, by correcting all image data based on properties of the display, Tokodoro teaches away from adjusting either the output of the data driver or the output of a video signal processing circuit based on current flowing from a high-voltage power supply circuit as detected by a current measuring circuit. Withdrawal of the rejection under 35 U.S.C. 103 is respectfully requested.

Claim 10

Claim 10 recites a display device having features similar to those discussed in connection with claim 9 and is believed allowable over the cited references for at least the reasons previously given. In particular, claim 10 recites "an output supplied from the scan driver to the display panel is controlled so as to be reduced when an amount of the high-voltage current detected by current measuring circuit exceeds a first threshold current value, and the video signal processing circuit controls an amplitude of the video signal so as to be reduced when an amount of the high-voltage current detected by the current measuring circuit exceeds a second threshold current value." Neither Tokodoro nor Francis discloses or fairly suggests controlling the output of a scan driver (or the amplitude of a video signal) based on current flowing from a high-voltage power supply circuit to a display panel and neither discloses first and second threshold values as claimed.

Claims 11-14

Claims 11-14 depend from one of claims 9-10. Each dependent claim incorporates all of the limitations of its respective base claim and each is therefore believed allowable over the cited references as previously discussed. In addition, Applicants note that neither Tokodoro nor Francis discloses that a value of a first and second threshold is determined according to a type of the video signal. For example, the combined references do not teach or suggest "a value of the first threshold value is arranged to be set larger than a value of the second threshold value when the video signal comprises a TV signal" as recited in new claim 11. Accordingly, claims 11-14 are allowable over Tokodoro and Francis for at least these additional reasons.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-350-6100.

Respectfully submitted,

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